# This Page Is Inserted by IFW Operations and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

## IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

### LISTING AND AMENDMENTS TO THE CLAIMS

This listing of claims will **replace** all prior versions, and listings, of claims in the application.

### What is claimed is:

- 1. (currently amended) A radiation diversity antenna consisting of comprising a radiating element of the slot-line type coupled electromagnetically to a feed line, wherein the radiating element consists of arms in a tree structure, each arm having a length equal to  $k\lambda s/2$  where k is an identical or different integer from one arm to the next and  $\lambda s$  is the guided wavelength in the slot-line constituting the arm, at least one of the arms comprising a switching means positioned in the slot-line constituting the said arm in such a way as to control the coupling between the arm and the feed line (6) as a function of a command.
- 2. (original) The antenna of claim 1, wherein each arm comprises a switching means.
- 3. (original) The antenna of claim 1, wherein the switching means is positioned in an open-circuit zone of the slot.
- 4. (original) The antenna of claim 2, wherein the switching means is positioned in an open-circuit zone of the slot.
- 5. (original) The antenna of claim 1, wherein the switching means consists of a diode, a transistor arranged as a diode or an MEMS (Micro Electro Mechanical System).
- 6. (original) The antenna of claim 1, wherein each arm has a length which is delimited by an insert positioned in a short-circuit plane.

- 7. (original) The antenna of claim 5, wherein the insert is placed at the level of the junctions between arms.
- 8. (original) The antenna of claim 1, wherein the tree structure has an H or Y shape or one which is an association of these shapes.
- 9. (original) The antenna of claim 1, wherein the antenna is produced by microstrip technology or by coplanar technology.
- 10. (original) The antenna of claim 1, wherein the length of the slot-lines is chosen so as to produce frequency diversity.
- 11. (new) An antenna comprising:
  a substrate having a first side and a second side;
  a first conductive layer disposed on said first side of said substrate;
- a plurality of radiating elements etched into said first conductive layer, each of said plurality of radiating elements;
- a feed line disposed on said second side of said substrate such that said feed line electromagnetically couples to at least one of said plurality of radiating elements; and
- a switching means coupled into at least one of said plurality of radiating elements to control the electromagnetic coupling between said feed line and said radiating element.
- 12. (new) The antenna of claim 11 wherein each of said plurality of radiating elements has a length equal to an integer multiple of the guided wavelength of said radiating element.
- 13. (new) The antenna of claim 11 wherein said plurality of radiating elements comprises 5 radiating elements forming an H pattern.

- 14. (new) The antenna of claim 11 wherein each of said plurality of radiating elements comprises a switching means.
- 15. (new) The antenna of claim 11 wherein said switching means is positions in an open-circuit zone of the slot.
- 16. (new) The antenna of claim 11 wherein the switching means comprises a diode.
- 17. (new) The antenna of claim 11 wherein the switching means comprises a transistor.
- 16. (new) The antenna of claim 11 wherein the switching means comprises a micro electro mechanical system.
- 18. (new) The antenna of claim 11 wherein each of said plurality of radiating elements has a length which is delimited by an insert positioned in a short circuit plane.
- 19. (new) The antenna of claim 11 wherein the length of each of said plurality of radiating elements is chosen as to produce frequency diversity.